



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,301	09/23/2003	Kiyonori Tsuda	243014US3	9277
22850	7590	11/05/2007		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BRASE, SANDRA L	
			ART UNIT 2852	PAPER NUMBER
			NOTIFICATION DATE 11/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

**Office Action Summary**

Application No.

10/667,301

Applicant(s)

TSUDA ET AL.

Examiner

Sandra L. Brase

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 12 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 5-7, 9-11, 13-15 and 19-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/31/07 &amp; 7/18/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1, 2, 8, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima (US 6,366,755) in view of Otsuka et al. (US 5,774,773).
4. Takashima et al. (...755) discloses an image forming apparatus comprising: a process cartridge (13Y, 13M, 13C and 13Y) including a developing device (17), the developing device including a developer carrier (48) configured to convey a developer deposited thereon to a developing zone where the developer carrier faces an image carrier (15) (figures 2 and 4) and a toner storing portion is configured to store a toner (figures 4 and 5), the developing device

configured to feed the toner from the toner storing portion to the developer carrier (col. 8, lines 1-48; and figures 1, 2, 4 and 5); and a toner container (58), removably mounted to a body of the image forming apparatus, storing fresh toner to be replenished to the toner storing portion; wherein the process cartridge and the toner container each are removably mounted to the image forming apparatus independently of each other (figures 1, 4 and 8), and the toner conveying means conveys fresh toner from the toner container to the toner storing portion by using an own weight of the fresh toner is mounted on the body of the image forming apparatus (figures 1, 2 and 8; and col. 10, lines 15-35). The process cartridge is positioned at a lower level than an outlet of the toner container (figures 1 and 2). The toner storing body is configured to convey the fresh toner stored therein in a preselected direction when rotated relative to a support member and the toner conveying device operates in synchronism with a rotation of the toner storing body (col. 9, lines 9-25). The toner conveying device comprises a pipe forming a toner conveying path and a coil disposed in the pipe and movable to exert a conveying force on the toner toward a downstream side in a direction of toner conveyance (col. 9, lines 9-67; col. 10, lines 15-50; and figures 1 and 8). The process cartridge and the toner container respectively comprise a plurality of process cartridges (13K, 13C, 13M and 13Y) and a plurality of toner containers (44K, 44C, 44M and 44Y) (col. 7, lines 13-17), an intermediate image transferring unit (25) is positioned between the process cartridges and the toner containers (figure 2), the outlets of the toner cartridges, the toner conveying means and outlets of toner storing bodies are positioned at one side of the intermediate transferring unit (figures 1, 2 and 8). However, Takashima (...755) does not disclose the claimed cap and toner container holder. Otsuka et al. (...773) disclose a toner container including a toner storing body (15) and a cap (17) rotatably affixed to the toner storing

body, the cap including an opening (col. 5, lines 8-48; and figure 3) and a toner container holder (18) configured to hold the toner container, the toner container holder fixedly holding the cap while allowing the container body to rotate in order to dispense the fresh toner from the container body through the opening of the cap (figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed cap and toner container holder, as disclosed by Otsuka et al. (...773), since such aids in the prevention of toner spillage and thus users need not worry about dirtying their hands as well as dirtying the periphery devices.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima (US 6,366,755) in view of Otsuka et al. (US 5,774,773) as applied to claim 1 above, and in further view of Matsuoka et al. (US 5,890,040).

6. Takashima (...755) in view of Otsuka et al. (...773) disclose the features mentioned previously, but do not disclose the mounting and dismounting direction of the toner container. Matsuoka et al. (...040) disclose an image forming apparatus including a plurality of toner containers (30K, 30C, 30M and 30Y) are mounted and dismounted from above an image forming body (figures 2 and 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to mount and dismount the cartridges in the claimed direction, as disclosed by Matsuoka et al. (...040), since such a mounting and dismounting direction is well known in the art.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima (US 6,366,755) in view of Otsuka et al. (US 5,774,773) as applied to claim 1 above, and in further view of Kitayama et al. (US 5,754,916).

8. Takashima (...755) in view of Otsuka et al. (...773) disclose the features mentioned previously, but do not disclose the claimed toner content sensing means. Kitayama et al. (...916) disclose a toner content sensing means for sensing a toner content of a developer present in a developing device, the control means controls replenishment of the toner to the developing device in accordance with an output of the toner content sensing means (col. 3, lines 26-44). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed toner content sensing means, as disclosed by Kitayama et al. (...916), so as to keep toner density within the developing unit constant.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima (...755) in view of Otsuka et al. (US5,774,773) as applied to claim 1 above, and in further view of Kinoshita (JP 2002-268295).

10. Takashima (...755) in view of Otsuka et al. (...773) disclose the features mentioned previously, but do not disclose the claimed counting means. Kinoshita (...295) discloses a counting means for counting a number of pixels of an image formed and control means for controlling replenishment of toner to the developing device in accordance with an output of the counting means (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed counting means, as disclosed by Kinoshita (...295), so as to maintain a toner density level.

***Allowable Subject Matter***

11. Claims 5-7, 9-11, 13-15 and 19-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

12. Applicant's arguments filed 8/16/07 have been fully considered but they are not persuasive.

13. Applicant argued that there was no cap disclosed in Takashima (US 6,366,755); however, as explained in the above rejection, such a cap member is taught by Otsuka et al. (US 5,774,773).

***Final Rejection***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Application/Control Number:  
10/667,301  
Art Unit: 2852

Page 7

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is (571) 272-2131.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray, can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sandra L. Brase  
Primary Examiner  
Art Unit 2852

October 24, 2007